

REMARKS

Claims 1-42 are pending in the present application. Claims 1-9 and 33-37 have been indicated as being allowed. Claims 11, 15, 25 and 32 are objected to as being dependent on rejected base claims, but would otherwise be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

DRAWING OBJECTIONS:

Paragraph Nos. 1-3 of the Office Action set forth various drawing objections. Applicants submit that the foregoing amendments to the drawings and specification overcome these drawing objections.

SECTION 112 REJECTIONS:

Claims 12, 20 and 28 were rejected under 35 U.S.C. §112 as being indefinite based on the phrase "a satellite drift" being unclear. Claims 23 and 24 were rejected under §112 as being indefinite based on the term "inroute" being unclear.

With regard to the rejection of claims 12, 20 and 28 as being indefinite Applicants have amended claims 12 and 20 by removing the indefinite article "a" preceding the term "satellite drift," and have amended claim 28 to recite "a correction for satellite drift". Compensation for satellite drift is discussed in paragraphs 54-56 and 60-63 of the specification. With regard to claim 28, read in light of the specification (paragraphs 54-60), it is clear that claim 28 calls for correcting the local reception time of a received frame reference marker by applying a correction (adjustment) to the local reception time in order to compensate for satellite drift. Accordingly, claims 12, 20 and 28, as amended, would be clearly understood by one of ordinary skill in the art in view of the cited discussion in the specification. Applicants respectfully submit that no further clarification is required.

Further, Applicants respectfully submit that claims 23 and 24 are also sufficiently clear as presently written. Claim 23 calls for providing an inroute channel message to an inroute receiver, claim 24 calls for pulsing an inroute channel message to an inroute receiver, claim 24 calls for pulsing an inroute receiver. Inroute channels and inroute

receivers are described throughout the specification (see e.g. paragraphs 16, 17, 20, 41, 43, 63). Read in light of the specification the meaning of "inroute" will be abundantly clear to those of ordinary skill in the art.

In light of the amendments to the claims and the above arguments, Applicants respectfully request that the Examiner withdraw the rejections under 35 U.S.C. §112.

SECTION 102 REJECTIONS:

Claims 17-19 and 21-22 were rejected under 35 U.S.C. §102(b) as being anticipated by Dutta (USPN 5,982,761).

Applicants respectfully traverse this rejection as follows. A claim is anticipated only if every element in the claim can be found in a single prior art reference. In the instant case independent claim 17 calls for, among other things, determining a control station timing delay and providing a timing marker and the control station timing delay in a message to be received by a remote user. Dutta does not teach determining a control station delay and including the control station delay in a message that is sent to a remote user.

According to the present invention timing information is provided to remote transceivers so that the remote transceivers may precisely time their burst transmission times as an offset of a received superframe header which is received at the remote transceivers in a superframe numbering packet (SFNP) transmitted to all remote transceivers. The superframe header is used by the remote transceivers to synchronize their transmit start of frames markers to a superframe marker pulse generated by the control station (NOC). In order for the remote transceivers to properly determine the appropriate transmit time they must accurately determine the actual time that the NOC frame pulse generator generated superframe marker pulse included in the superframe numbering packet. In order to do so the remote transceivers need to know (among other things) the internal delay that occurs within the NOC between the time the superframe marker pulse is created by the frame pulse generator and the time it is actually transmitted in a superframe numbering packet in a message broadcast from the NOC.

Dutta does not teach an equivalent control station delay sent in messages to remote users. The Examiner's remarks on the subject of the control station timing delay are unclear. The Examiner states "slot markers indicate the respect to prior and subsequent time slots and thus delay can be determined with respect to prior and subsequent time slots col. 19, lines 28-42" and "see also message transport delays col. 11, line 58, col. 12, line 3." Neither of the cited passages teaches measuring and compensating for internal processing delays that occur at the control station between the time a superframe marker pulse is generated and the time it is actually broadcast as part of a superframe numbering packet. Accordingly, claim 17 as well as claims 18, 19, 21 and 22 which depend therefrom, are not anticipated by Dutta.

Claims 10, 14, 16, 27-29, 31 and 32 were rejected under §102(b) as being anticipated by Malcolm (USPN 5,790,939).

With regard to claim 10, Applicants have canceled claim 10. Further, Applicants have amended claim 11 to be in independent form including all of the limitations of rejected claim 10. Accordingly, Applicants submit that amended claim 11, and the claims depending therefrom (claims 12-16), are all in condition for allowance.

Regarding the rejection of claims 27-29 and 31-32, Applicants respectfully traverse. Claim 27 calls for a method for transmitting a frame synchronized message including, among other things, receiving a control node timing differential at a local receiver; correcting the local reception time by applying the control node timing differential and a local offset time. These features are not disclosed by Malcolm et al. Malcolm et al. teach broadcasting a frame timing offset from a satellite to a mobile terminal having a timer, and adjusting the timer based on the timing offset (Col. 2, lines 16-21). Malcolm et al. do not teach that the offset broadcast from the satellite is associated with a control node timing differential. Nor do Malcolm et al. teach correcting the local reception time by applying the control node timing differential and a local offset time. For the step of applying a local offset the Examiner merely points to the existence of a timer (col. 2, line 17). The mere existence of a timer does not teach how the timer is used, and it certainly does not teach applying a local offset time to the local reception time of a received frame reference

marker. Accordingly, claim 27 and its associated dependent claims 31-32 are not anticipated by Malcolm et al. and should be allowed.

SECTION 103 REJECTIONS:

Claim 13 was rejected under 35 U.S.C. §103 as being unpatentable over the combination of Malcolm and Dutta. Claim 26 was rejected under §103 as being unpatentable over Dutta in view of Wolff et al. (USPN 6,366,970). Claims 38-39, 41 and 42 were rejected under §103 as being unpatentable over Dutta and Malcolm. And finally, claim 40 was rejected under §103 as being unpatentable over the combination of Dutta, Malcolm and Wolff.

With regard to claim 13, claim 13 has been amended to depend from claim 11, and claim 11 (as amended) is in condition for allowance (as discussed above).

Claim 26 was rejected over the combined teaching of Dutta and Wolff et al. Claim 26 depends from claim 17. As discussed above, claim 17 calls for, and Dutta fails to disclose, determining a control station delay and including the control station delay in a message sent to a remote user. Wolff et al. are cited merely for teaching a message sent to a remote user broadcast on an asynchronous dub transport stream. Combining this teaching of Wolff et al. with that of Dutta still fails to teach the steps of determining a control station delay and sending the control station delay to remote users as called for in the base claim 17. Applicants respectfully submit, therefore, that claim 26 is allowable over the cited art as well.

Claims 38-39 and 41-42 were also rejected over the combination of Malcolm et al. and Dutta, and claim 40 was rejected over Dutta, Malcolm et al. and Wolff et al. Claim 38 (from which claims 39-42 depend) has been amended to include the limitations of (i) determining a control station timing delay and (ii) using the control station timing delay in offsetting the local time reference. As has already been discussed with regard to claim 17, these features are not disclosed in the cited prior art references (particularly the main reference -- Dutta). For this reason, Applicants respectfully submit that claims 38-42 are also now in condition for allowance.

Applicants, therefore, respectfully submit that all pending claims are in condition for allowance and notice to this effect is respectfully requested.

No amendment made was related to the statutory requirements of patentability unless expressly stated herein; and no amendment made was for the purpose of narrowing the scope of any claim, unless Applicant has argued herein that such amendment was made to distinguish over a particular reference or combination of references.

If, however, the Examiner believes that there are any unresolved issues requiring adverse action in any of the claims now pending in the application, it is requested that the Examiner telephone Mr. Craig Plastrik, at 301-601-7252, so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully Submitted,



Craig Plastrik
Reg. No. 41,254

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THE DIRECTV GROUP, INC.
Customer No. 20991